

## INTERNATIONAL SEARCH REPORT

International Application No.

PCT/EP 03/02513

Rec'd PCT/TO 10 DEC 2004

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 F16L55/38 F16L55/40 F16L55/165

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 F16L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 90 12241 A (INSITUFORM GROUP LTD) 18 October 1990 (1990-10-18)	1-13
Y	page 16, line 31 -page 19, line 2 page 22, line 2 -page 23, line 15; figures 12-16,25-30	17,18
X	US 5 384 086 A (SMITH EDWARD P) 24 January 1995 (1995-01-24)	1-8,27
Y	column 2, line 44 -column 2, line 59; figures 1,2	17,18
X	US 4 602 974 A (CHICK DOUGLAS ET AL) 29 July 1986 (1986-07-29)	1,27
	column 6, line 14 -column 6, line 36; figures 8,9	

☐ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## \* Special categories of cited documents:

\*A\* document defining the general state of the art which is not considered to be of particular relevance

\*E\* earlier document but published on or after the international filing date

\*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

\*O\* document referring to an oral disclosure, use, exhibition or other means

\*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

\*G\* document member of the same patent family

Date of the actual completion of the international search

5 September 2003

Date of mailing of the international search report

18/09/2003

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Donnelly, C

BEST AVAILABLE COPY

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB 03/02513

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9012241	A	18-10-1990	AU 642869 B2 AU 5418890 A CA 2051417 A1 EP 0519917 A1 WO 9012241 A1 NO 913819 A	04-11-1993 05-11-1990 07-10-1990 30-12-1992 18-10-1990 03-10-1991
US 5384086	A	24-01-1995	AT 119826 T AU 635116 B2 AU 7178291 A CA 2073176 A1 DE 69108227 D1 DE 69108227 T2 DK 511260 T3 EP 0511260 A1 ES 2069275 T3 FI 923018 A WO 9110555 A1 IE 910154 A1 JP 5503891 T LT 1838 A ,B LV 10218 A ,B NO 922764 A RU 2062235 C1	15-04-1995 11-03-1993 05-08-1991 19-07-1991 20-04-1995 05-10-1995 29-05-1995 04-11-1992 01-05-1995 29-06-1992 25-07-1991 31-07-1991 24-06-1993 25-08-1995 20-10-1994 14-07-1992 20-06-1996
US 4602974	A	29-07-1986	NONE	

Form PCT/ISA/210 (patent family annex) (July 1992)

BEST AVAILABLE COPY